

D.P.U. 94-65

Application of Commonwealth Electric Company, pursuant to G.L. c. 164, § 94G(a), for approval by the Department of Public Utilities of the Company's annual performance program relating to fuel procurement and use.

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FOR: COMMONWEALTH ELECTRIC

COMPANY

Petitioner

I. INTRODUCTION

On April 1, 1994, pursuant to G.L. c. 164, § 94G(a), Commonwealth Electric Company ("Commonwealth" or "Company") filed a petition with the Department of Public Utilities ("Department"), requesting approval of proposed generating unit performance goals for the period July 1, 1994 through June 30, 1995. Section 94G(a) requires each electric company to file with the Department annual performance programs that provide for the efficient and cost-effective operation of its generating units. Each company's performance program must include proposed unit and system performance goals for availability factor ("AF"), equivalent availability factor ("EAF"), capacity factor ("CF"), forced outage rate ("FOR"), and heat rate ("HR"). The petition was docketed as D.P.U. 94-65.

Pursuant to notice duly issued, the Department conducted a hearing on the Company's petition on June 6, 1994. In support of its petition, the Company sponsored the testimony of Richard W. Garlick, results engineer for the Company. The evidentiary record includes seven exhibits and Company responses to two record requests.

II. THE COMPANY'S SUPPLY-SIDE PORTFOLIO

Under life-of-the-unit contracts, Commonwealth receives electric power from the West Tisbury (5.0 megawatts ("MW")) and Oak Bluffs

(7.5 MW) diesel units; 20.0 percent (111.50 MW) of the output from Canal 1, a 557 MW fossil unit, and 31.5 percent (183.0 MW) from Canal 2, a 581 MW fossil unit, both owned and operated by the Company's affiliate, Canal Electric Company; 1.4 percent (8.9 MW) from Wyman 4, a 619.3 MW fossil unit, operated by Central Maine Power Company; 11.0 percent (73.7 MW) from Pilgrim, a 670 MW nuclear unit, owned and operated by Boston Edison Company; 2.8 percent (32.2 MW) from Seabrook, a 1150 MW nuclear unit, owned and operated by the New Hampshire Yankee Corporation (Exhs. CEC-7, CEC-6-5, CEC-6-1, CEC-4-9, CEC-4-8, CEC-4-6; RR-DPU-1). The Company also receives 3.2 MW from diesel units located at the airport (Exh. CEC-7, § 4).

A five-year Canal Electric Company-Central Vermont Public Service power purchase contract (47.4 MW) entitles Commonwealth, through Canal, to 7.0 percent (22.4 MW) from Merrimack 2, a 320 MW fossil unit owned and operated by Public Service Company of New Hampshire, and 4.8 percent (25.0 MW) from Vermont Yankee, a 521.80 MW nuclear unit, owned and operated by Vermont Yankee Nuclear Power Corporation (Exh. CEC-4-2, CEC-4-7, CEC-4-8, CEC-5-1; RR-DPU-1).

The remainder of the Company's supply purchases comes from

small power producers, such as Boot Mills (20 MW), Chicopee Hydro (2.2 MW), Collins Hydro (1.3 MW), Ware Hydro (1.2 MW), Dartmouth Power (68.2 MW), and from power purchase contracts signed pursuant to 220 C.M.R. §§ 8.00 et seq., such as Consolidated Power Company Lowell cogeneration (26.8 MW), SEMASS RQF (46.2 MW), Pepperell (37.2 MW)¹, Northeast Energy Associates (53.4 MW), SEMASS Expansion (20.8 MW), Masspower (59.9 MW), and Altresco-Pittsfield (29.5 MW) (Exh. CEC-7, § 4).

Altresco-Pittsfield is a gas-fired cogeneration facility with a design winter normal capacity of 165 MW. Altresco-Pittsfield, Inc., 17 DOMC 351, at 354 (1988).

For the purpose of distinguishing those units that contribute most to system costs, performance programs identify major and minor units. Major units are units which contributed at least five percent of the system generation (as measured in megawatt-hours) in any of the previous three years, or units in which the Company has at least a 100 MW entitlement. Any unit that does not qualify as a major unit is a minor unit. The Company's major units are Canal 1 and 2, Pilgrim, and

¹ The Company submitted a contract amendment for approval by the Department, dated July 7, 1994, that would terminate any obligation to purchase power from the Pepperell facility.

Seabrook (Exh. CEC-7, § 5).

III. THE COMPANY'S PROPOSED GOALS

The Company proposed performance goals for Canal 1 and 2; West Tisbury diesels; Oak Bluffs diesels; Wyman 4; Airport diesels; Pilgrim; Seabrook; Vermont Yankee; and Merrimack 2 (Exh. CEC-7, § 3; RR-DPU-1). The Company submitted proposed goals for its major and minor units that were calculated in a manner that was generally consistent with the methodologies approved in the Company's last performance program. See Commonwealth Electric Company, D.P.U. 93-67, at 3-5 (1993).

Under the Company's goals proposal, the EAF goals for major and minor units were set at values corresponding to each unit's Target Unit Availability ("TUA"), which are the availability targets that the New England Power Pool ("NEPOOL") sets for each member utility's units under its Performance Incentive Program (Exh. CEC-3, § 7). In developing its proposed goals, the Company used the TUAs approved by the New England Power Supply Planning Committee and adopted by the NEPOOL Executive Committee in the April 21, 1993 revision, which became effective on May 1, 1993 (id.).

The Company calculated the remaining performance goals (i.e., AF, FOR, CF, and HR) in accordance with the major unit methodology

approved in previous proceedings, regardless of whether units met the major or minor unit criteria² (Exh. CEC-3, § 2). The Company also calculated system goals in a manner generally consistent with the methodology that has been approved by the Department in previous proceedings³ (Exhs. CEC-7, § 3, CEC-4-4).

IV. ANALYSIS AND FINDINGS

² AF goals were derived by adding to the EAF goal the ratio of average annual equivalent derated hours for the last three years to average annual period hours (Exh. CEC-3, § 2). CF goals for nuclear units were set equal to the EAF goal (Exhs. CEC-3, § 2; CEC-5-4). CF goals for fossil units were derived by multiplying the ratio of the three-year average CF to the three-year average EAF by the EAF goal (Exhs. CEC-3, § 2; CEC-6-4, CEC-5-7). FOR goals were derived by dividing projected FOH by the sum of projected FOH and SH (Exhs. CEC-3, § 2; CEC-5-6). Projected FOH were developed by dividing the three-year average FOH by the three-year average PH, then multiplying by the PH in the performance year (Exh. CEC-3, § 2). Projected SH were developed by calculating the ratio of three-year average SH to three-year average AH and multiplying that ratio by the AF goal, then by PH in the performance year (id.). HR goals were set at the best (lowest) annual HR obtained during the previous three years (id.).

³ System goals for EAF, AF, CF, FOR, and HR were developed from the weighted averages of the goals for the individual units (Exh. CEC-4-4). The weighing factor for each unit was the ratio of unit to system generation as projected during the performance year (id.). Projected generation for each unit was calculated by multiplying each unit's capacity by its CF goal (id.). Projected system generation was calculated as the sum of projected unit generations across the system (id.). For the system HR goal calculation, the weighing factor for each fossil and nuclear unit was developed as a ratio of unit to system generation (id.).

The Department has reviewed the Company's goals proposal and finds that it includes all the units that should be included in the Company's generating unit performance program. The Department also finds that proposed goals for major and minor units were calculated in a manner consistent with the methodologies approved by the Department in D.P.U. 93-67.

In D.P.U. 93-67, the Department found that several advantages would result if goals were adopted based on NEPOOL TUAs: (1) the methodology would produce the same EAF goal for generating units included in more than one company's supply portfolio; and (2) the methodology would reduce the time, effort, and expense incurred by a company in preparing goal-setting filings and by the Department in reviewing those filings.

In this proceeding, the Department reaffirms its findings in D.P.U. 93-67 and finds that the efficient and effective administration of the Company's performance program is best served by the goals proposal submitted by the Company in Exhibits CEC-3, CEC-7, and RR-DPU-1. The Department approves the goal-setting methodologies implicit in that proposal, and the resultant unit and system performance goals, as identified in RR-DPU-1. The approved Company unit and system goals based on NEPOOL TUAs are identified in Table 1

attached to this Order.

V. ORDER

Accordingly, after due notice, hearing, and consideration, it is ORDERED: That the generating unit and system performance goals for Commonwealth Electric Company for the period July 1, 1994 through June 30, 1995, shall be those contained in Table 1 attached to this Order; and it is

FURTHER ORDERED: That, as part of its next performance filing, the Company shall submit potential performance goals based on NEPOOL TUAs effective at that time, and shall comply with the requirements set forth in this Order; and it is

FURTHER ORDERED: That, pursuant to G.L. c. 164, § 94G and § 2.6(b) of the Department's guidelines for performance program, dated December 8, 1981, the Company shall report on its progress under the annual performance program with each filing made pursuant to these guidelines; and it is

FURTHER ORDERED: That the Company shall file its next performance program goals by April 1, 1995, and the next performance period shall run from July 1, 1995, through June 30, 1996.

By Order of the Department,

Kenneth Gordon, Chairman

Barbara Kates Garnick, Commissioner

Mary Clark Webster, Commissioner